

## TITLE 7---AGRICULTURE

7-15-40

## CHAPTER III--BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

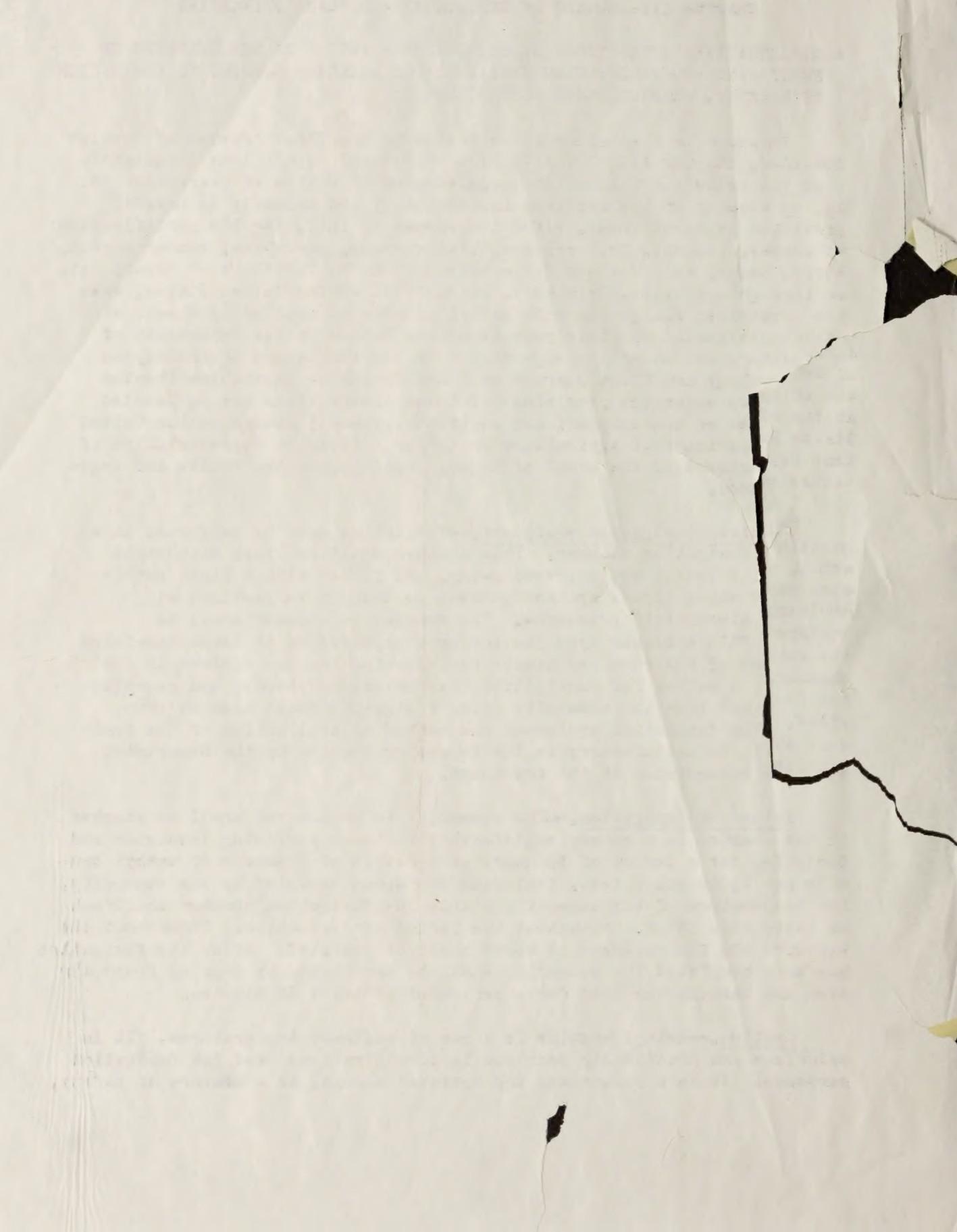
ADMINISTRATIVE INSTRUCTIONS AMENDING AUTHORIZATION OF THE SHIPMENT OF  
FRUITS AND VEGETABLES FROM HAWAII TO THE MAINLAND SUBJECT TO FUMIGATION  
WITH METHYL BROMIDE UNDER SUPERVISION

Pursuant to the authority contained in the first proviso of Section 301.13-2, Chapter III, Title 7, Code of Federal Regulations (regulation 2 of the rules and regulations supplemental to Notice of Quarantine No. 13, on account of the Mediterranean fruitfly and melonfly in Hawaii) provision is hereby made, effective August 1, 1940, for the certification of guavas, papayas, bell peppers, bitter melon, cucumbers, summer squash, string beans, and tomatoes for movement from the Territory of Hawaii into or through any State, Territory, or District of the United States, when the prescribed fumigation with methyl bromide is applied in Hawaii at plants designated for this purpose by the United States Department of Agriculture and under the supervision of the inspectors of the Bureau of Entomology and Plant Quarantine. Any fruits or vegetables treated and shipped under the provisions of these instructions are so handled at the risk of the shipper, and no liability shall attach to the United States Department of Agriculture or to any officer or representative of that Department in the event of injury resulting to the fruits and vegetables named.

Required fumigation equipment.--Fumigation must be performed in a gastight fumigation chamber. This chamber shall be lined with sheet metal, with locked and soldered seams, and fitted with a tight metal-clad door which closes against gaskets so that it is gastight at ordinary atmospheric pressures. The fumigation chamber shall be equipped with a blower type fan having a capacity of at least one-third the volume of the room per minute for stirring the gas mixture in the chamber. A method for ventilating the fumigation chamber and removing the fumigant from the commodity after fumigation shall also be provided. The fumigation equipment and method of application of the fumigant shall be satisfactory to the inspector charged by the Department with the supervision of the treatment.

Method of fumigation.--The commodity to be treated shall be stacked in the chamber in a manner satisfactory to the supervising inspector and fumigated for a period of 3½ hours at a dosage of 2 pounds of methyl bromide per 1,000 cubic feet, including the space occupied by the commodity. The temperature of the commodity within the fumigation chamber shall not be lower than 80° F. throughout the period of fumigation. Throughout the exposure the fan referred to above shall be operated. After the fumigation has been completed the commodity shall be ventilated by drawing fresh air over and through the load for a period of at least 20 minutes.

Caution.--Methyl bromide is a gas at ordinary temperatures. It is colorless and practically odorless in concentrations used for fumigation purposes. It is a poison and the operator should, as a measure of safety,



use an approved gas mask when exposed to the gas at concentrations used in fumigation and when opening the door to ventilate the fumigation chamber. The fumigation chamber should not be entered without a gas mask until it has been thoroughly aerated.

Certification.--The certification of the fruits and vegetables enumerated will be contingent upon the surrounding of the products so treated with safeguards which, in the judgment of the inspector, will preclude infestation of the treated fruits and vegetables from the time they leave the fumigation chamber until loaded for dispatch to the mainland.

Done at Washington, D. C., this 15th day of July 1940.

LHE A. STRONG,

Chief, Bureau of Entomology and Plant  
Quarantine



3 1262 09312 1910

Some modifications to the original design were made to accommodate the  
unintended use conditions of these new batteries and the resulting  
use of a smaller amount of the liquid solution in the first cell, reducing  
the chance of leakage from the first cell.

Additional new designs will be developed after evaluation,  
as discussed with the government and Army Research and Test Bureau.  
The development will be completed with a wider range of temperatures  
and will work under higher temperatures and the anticipated operating  
rate and at pressures up to 1000 psi. Further modification will occur until  
the desired results are obtained.

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